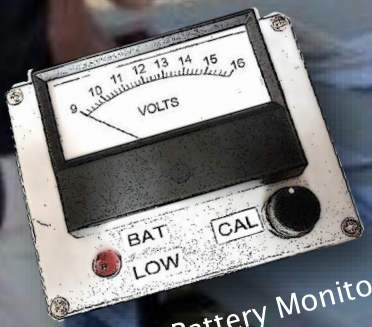
SARC

The Surrey Amateur Radio Club

Communicator

October 2015



Build a Battery Monitor

The Newsletter of the Surrey Amateur Radio Club

At The Last Meeting...

SURREY
AMATEUR RADIO CLUB

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At The September Meeting...

Minutes of the September 9, 2015
General Meeting

Introduction

The Sept. 9, 2015 general meeting of SARC was brought to order at 1905 hr by President Mike Plant VE7AT. He welcomed members to the first meeting of the new season, then presented John Brodie VA7XB, with a certificate of thanks and a gift certificate for his service to the club as President from 2008 to 2015. 34 members attended the meeting, as indicated by the sign-in sheet.

220 Repeater Question

Mike VE7AT opened the business portion of the meeting by asking for opinions on the club purchasing a 220 repeater to complete the installation at Concord tower. Mike pointed out that a) a 220 antenna and feedline are already in place at the site b) a 220 duplexer is available and c) a 220 repeater can be purchased for about Cdn $1,500. The following questions were put before the members:

1. How many members have a 220 radio? Response: 6
2. How many members would use a 220 repeater if we had one? Response: 6
3. Would members be in favour of spending club and personal funds to purchase a repeater? Tabled pending a review of finances.

After Treasurer, Scott Hawrelak VE7HA, presented the financial report (later in the meeting) and after further discussion of the pros and cons, a motion was made by Mike VE7AT and seconded by Geoff Higginson VA7HIG, that the club approve the expenditure of approximately $C 1500 for the purchase of a 220 repeater. The vote carried with 13 in favour, 10 opposed, and 7 abstaining.

Breakfast Meeting Question

Members present were asked if they were in favour of moving the weekly breakfast meeting from Friday to Saturday morning, in the interest of increasing participation. Some members indicated that it would be better attended if it was later in the morning. A show of hands indicated support for changing the meeting to 9 am on Saturday morning on a one-month trial basis, beginning Saturday, Sept. 19.

Raffle & Cruise-in

Al Peterson VA7ALZ reviewed the arrangements regarding the event on Saturday, Sept. 12th. He emphasized that all unsold tickets, ticket stubs and cash must be returned to him before the raffle draw on Saturday afternoon. In response to his request for additional volunteers to fill out the afternoon shift at SARC's booth, a couple of members stepped up. Al noted that wearing a reflective vest and an ID tag are compulsory. Vests purchased by the club including an SARC badge for $10 were distributed at the meeting. Al Munnik VA7MP stated that LARA can provide loaner vests if needed. Al VA7ALZ reminded volunteers that they must bring their own chair and lunch but water will be provided. Parking is available at the Vineyard Church, at Kwantlen College with shuttle, and at the offices of Anton James VE7SSD on Glover Rd. LARA will have 2 booths set up and in addition, will provide net control at Fire Hall 1 using their repeater 147.380 MHz (tone 77.0) or backup mobile repeater 146.780 (tone 110.9). SARC's booth is at Value Village, corner of Glover Rd and 56th Ave.

Financial Report

Scott VE7HA reported the balance of the club's chequing and savings accounts, noting that the $500 Surrey Field Day grant has not yet been received and that annual dues and raffle monies will be coming in shortly. Field Day expenses amounted to $2700, a larger than usual amount which was the result of previously untried strategies (battery power and novel antennas), requiring expenditures of a non-recurring nature. He also noted that over the next few weeks, $2000 will be moved into a new account designated as "clubhouse fund" as per the decision at the AGM.

Field Day Best Photo Award

The best FD photo award was won by Hiu Yee VE7YXG for the photo shown on the cover of the September Communicator. Hiu's award was one year's free SARC membership.

Technical Presentations

Technical presentations were made by: John VA7XB (analog battery monitor), Keenan VE7XEN (digital battery monitor) and John Schouten VE7TI (relay-type power gate). These will be put on the website and/or revised into Communicator articles. Keenan was presented with an award of magnifying desk lamp for the most innovative project design and construction.

Committee Reports

Stan VA7NF for SEPAR: nil

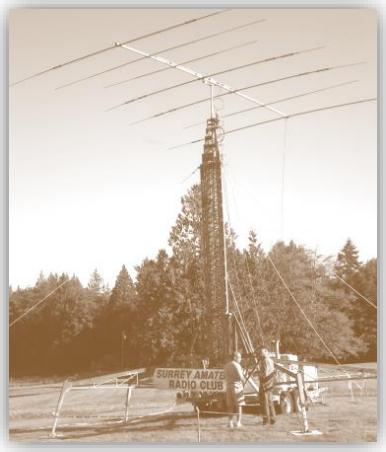
John VE7TI for Communicator: John requested that members continue to submit items regarding buy/sell, stories, news of members, technical articles, etc.

Swap Meet

The meeting concluded with an in-house swap meet and was adjourned at 2100 hr.

Minutes prepared by:

~John VA7XB
Secretary



The **SARC Communicator** is published monthly except July and August for members of the Surrey Amateur Radio Club.

To subscribe, unsubscribe or change your address for e-mail delivery of this newsletter, notify **SARCcommunicator @ outlook.com**

Non-members living in the Greater Vancouver area may receive one trial issue.

Beyond our membership area, annual Communicator subscriptions are available for a $5 donation towards our Field Day fund.

SARC maintains a website at **www.ve7sar.net** that includes club history, meetings, news, photos and other information.

Breakfast Reminder

The SARC breakfast has been moved to Saturday at the same place, the Kalmar Restaurant at 80th and King George Hwy in Surrey at 9:00 am. Bring your significant other, bring your family, see old friends and have fun.

220 Repeater Update,

The repeater is being built for us now, our goal (fingers crossed) is to be on the air in 4 weeks.

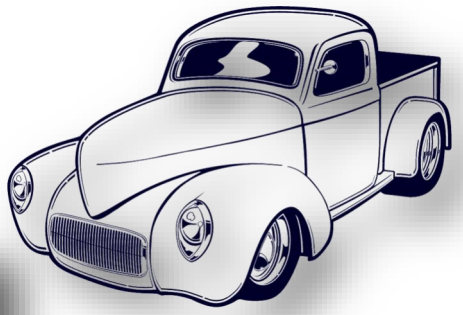
On The Cover…

Our cover photo this month features the Surrey Amateur Radio Club and Langley Amateur Radio Association booth at this year's Langley Cruise-In. Our volunteers provided information about Amateur Radio and provided communications support for the event using hand-held transceivers and the Langley repeaters.

The complete story and more photos on the next page.

The Langley Cruise-In

Saturday, September 12th.



What a great day to have a car show, blue skies and not too hot.

My day started at 6:00 am to meet the Langley Radio Club and get signs, maps and souvenir programs.

The booth was set up under the Value Village sign on the corner of Glover Rd. And 56 Ave. we also set up an HF radio (my Yaesu 857d and a ATAS 120 antenna on my truck).

Joining me for the morning shift (8-12) was Brett Garrett, John and Heather Brodie, and Jinty Reid joined us at 9:30-1:00. The afternoon shift (12-4) was Sheldon Ward, Stan Williams and Jeremy Morse. Joe Zaccaria and Al Munnik spent the day as net control.

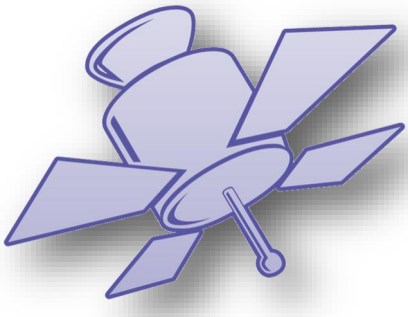
It was a busy day directing people to various events, but mostly to the In-N-Out burger joint.

The raffle tickets were selling well all day with Jinty selling the most. The winners of the raffle were: First prize Jinty Reid, second prize Francis Daniel and third prize went to someone in the crowd but never got his name.

The booth was dismantled just after 4:00. Thank you to everyone who helped we couldn't do it without you.

~ Al Peterson VA7ALZ

Photos courtesy of John Brodie VA7XB



Satellite Specialty Group

Chinese Satellites Now Accessible on Dual-band FM

LilacSat 2 was launched in a cluster of 20 satellites on the maiden flight of the CZ-6 rocket.

CAS 3H or LilacSat 2 is a low-cost, nano-satellite for education, amateur radio communication and technology demonstration, built by a team of 15 students of Harbin Institute of Technology (HIT) Peoples Republic of China. It is a cube-shaped 20 cm × 20 cm × 20 cm satellite with a weight of 11 kg.

LilacSat-2 provides hands-on experience for students who would not otherwise have the opportunity to build flight hardware for a space mission. The training these students gain by working on this project will better prepare them for work in the aerospace industry.

LilacSat-2 carries four payloads:

- A V/U amateur radio SDR platform. It can be configured as an FM repeater or an APRS digipeater. It will also provide a VHF CW beacon and UHF 9k6 BPSK telemetry downlink
- An SDR based multi-band receiver, for reception and decoding of signals from AIS, ADS-B, etc.
- An FPGA software testing platform.
- A thermal infrared camera.

Wei Mingchuan, BG2BHC, reports that the amateur radio FM voice transponder on the LilacSat-2 satellite should now be activated on a regular basis.

On September 24 the student team at the Harbin Institute of Technology successfully downloaded the first infrared image from the satellite.

LilacSat-2 is scheduled to switch on the FM transponder at about 2200 UT each Monday, Wednesday and Friday. The FM transponder (and APRS) downlink is 437.200 MHz, remember the Doppler shift on the downlink during a pass will be about +/- 10 kHz. If your radio has selectable FM filters use the wider filter designed for 5 kHz deviation FM, sometimes referred to as a 25 kHz channel spacing filter.

LilacSat-2 was deployed into a 528 km by 551 km 97.5 degree inclination orbit. The NASA Orbital Lifetime Software indicates the satellite might remain in orbit for 18 years before re-entry into the Earth's atmosphere.

Frequency information is given on the LilacSat-2 Radio Info page: http://lilacsat.hit.edu.cn/?page_id=257

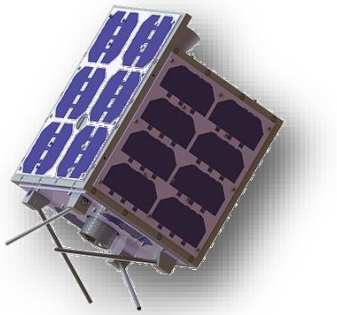
Harbin Institute Of Technology Amateur Radio Club BY2HIT Weibo: http://www.weibo.com/by2hit

QRZ: http://www.qrz.com/db/BY2HIT

Website: http://tinyurl.com/BY2HIT

AMSAT-UK LilacSat-2 page with tracking links http://amsat-uk.org/satellites/communications/lilacsat-2/

Perigee: 527.6 km
Apogee: 549.0 km
Inclination: 97.5 °
Period: 95.3 minutes
Launched: 2015-09-15



LilacSat 2

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Uplink:   144.350 MHz FM, no CTCSS/PL
Downlink: 437.200 MHz FM, +/- for Doppler

FM repeater is currently planned to be active for 24 hours at a time,
starting around 2200 UTC on Mondays, Wednesdays, and Fridays.


As with other satellites, full-duplex operation is preferred. This
allows you to hear your own signals from the satellite, without
relying on others to confirm that. Please listen around the 144.350
MHz uplink frequency before working LilacSat-2 passes, as this is
a frequency outside the normal 2m amateur satellite subband at
145.800-146.000 MHz. The 144.350 MHz uplink frequency is a legal
uplink frequency per the International Radio Regulations and (in
the USA) FCC Part 97, but may conflict with local or regional band
plans.
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The Contest Contender

Brett Garrett VE7GM

"On the October 24th weekend we have our first hosted contest of the season"

September had several major contests. The first was the All Asian DX Phone contest, and later in the month came the Worked All Europe SSB DX contest, ARRL September VHF Contest, North American CW Sprint, and CQ Worldwide RTTY DX contest.

There were also several state QSO Parties (Colorado, Tennessee, Arkansas, South Carolina, New Jersey, Washington's "Salmon Run", Maine and Texas).

For a contest of a different type, the weekend of September 19th brought the D-STAR QSO Party, sponsored by ICOM. Although I have a D-STAR-capable radio (IC-2820), I had never taken part, discounting the contest because it makes nearly exclusive use of repeaters and the internet. This year, however, a ham friend shoved a sheaf of papers (the D-STAR contest rules) into my hand over coffee one day, suggesting I read them and join in. I did.

It was a great opportunity to learn the various intricacies (and weaknesses) of the D-STAR system, but it was absolutely the slowest contest I have ever taken part in, making even PSK31 look fast. After getting eight contacts (ten are needed for point credit) I ran out of patience and packed up the radio, having worked South Africa, South Korea, New Zealand, Australia, Norway, and –no surprise– the USA.

However, for those of you who have D-STAR-capable radios, I recommend giving it a try for at least 3-4 hours next year. It can give you a great chance to explore all that D-STAR has to offer. It also gives you a great chance to get your settings correct.

(For example, a surprising number of participants thought they were transmitting their longitude and latitude, and were not, even though their radios had built-in GPS receivers.) And for those of you who are restricted to single-element VHF antennas, it may be your best chance to work some real DX (even if it is via the internet).

October starts out with the California QSO Party on the weekend of October 3rd. This is my second favourite QSO party (after the BC QSO Party), and is generally very active and produces lots of contacts in both CW and SSB. If you have some time and HF capabilities, I recommend you give this one a try. You can find the rules here: http://www.cqp.org/Rules.html

Those of you with good beams and amplifiers may enjoy the Oceania DX Phone Contest on the same weekend. The CW version is the following weekend (October 10th).

The Arizona and Pennsylvania QSO parties are also on the weekend of October 10th, although BC to Pennsylvania might be a bit of a stretch with a low solar flux index. Arizona should be achievable, however (he said, optimistically).

On the October 17th weekend we have the Iowa, New York, South Dakota, and Illinois QSO parties.

On the October 24th weekend we have our first hosted contest of the season, the CQ Worldwide SSB DX contest. John VA7XB has offered to host other contest group members. Interested members should contact John soon to book a time slot.

For regular mid-week contest practice, CW contesters have the CWops Weekly Mini-CWT test (http://www.cwops.org/cwt.html) and SSB enthusiasts have the Phone Fray

(http://www.perluma.com/Phone_Fray_Contest_Rules.pdf). The Phone Fray, unfortunately, is at the same time as the SEPAR Tuesday night 2-m net, but if you get your timing right you can check into the SEPAR net and then jump over to the HF bands for the Phone Fray. (Thanks to Sheldon VA7XNL for bringing this one to our attention.)

As always, you can find a list of most of the latest contests from the (customizable) WA7BNM contest calendar (http://www.hornucopia.com/contestcal/index.html), and by checking the monthly ARRL "Contest Corral" lists (http://www.arrl.org/contest-calendar).

73 & GL in the contests!

~ Brett VE7GM

Electronic Magazines?

The Local Library Can Probably Meet Your Need

For sometime I have had a electronic subscription to the magazine service called Next Issue. This cost me about $9.95 a month, but I've made a great discovery.

Would you like to receive the current and back issues of 'CQ' amateur radio magazine for free? Well you can, plus almost three-hundred other retail magazines covering a wide variety of subjects and interests. How? Well do you have a library card? If not, you can get one for free at your local library. Once you have it, just go online to surreylibraries.ca (or your city library depending on your locality) and look for the link to the eLibrary. Once there, click on Zinio Digital Magazines.

Once there you'll see not only CQ magazine but Popular Mechanics, Popular Science, many computer and woodworking magazines and lots more. A video tutorial is at https://vimeo.com/118833746.

Current Issues — New issues are released simultaneously with the print edition. Many are available before they arrive at your library and are ready for immediate download.

Back List — As your collection grows, so does the digital library for anytime checkout and reading.

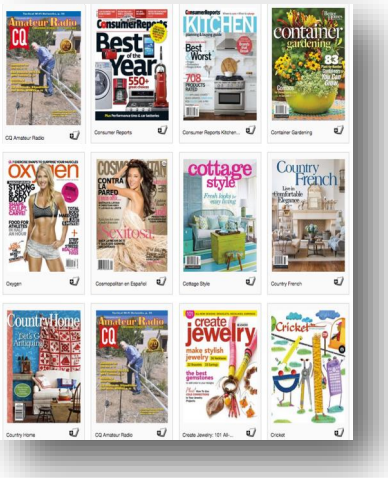
Easy browsing and checkout — Browse your library's collection of titles one at a time, search for your favorite magazines by title or use the convenient category feature to find new magazines which meet your interests.

Manage your collection — Using the personal account you create, you will have the opportunity to checkout magazines and read them instantly on your computer or access the content on a portable media device.

I use an iPad for my reading and Zinio has a dedicated app. There is also one for Windows and Android devices and for most popular eBook readers. There is no limit to the number of magazines you can download nor is there a limit how long you keep them. No waiting list or reservations. When you're done with them just delete them from your device. If there is something I want to get I make a screen grab. There is a request form for new magazines to be added… perhaps if enough of us ask we can get some additional Amateur Radio publications.

I hadn't been to a library in months but, thanks to Norman Schmidt VE7IIT, whom I followed into the library after a recent Friday morning breakfast, I made this marvelous discovery. I can now sit back in my easy chair and read more magazines than I could justify subscribing to. I even get an email when my favorite magazines publish a new issue.

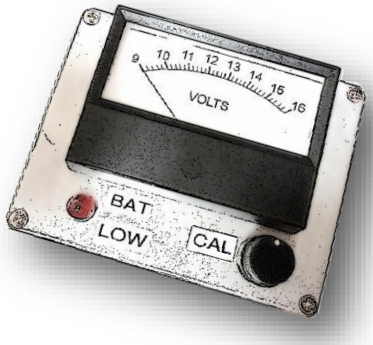
~ John VE7TI



Tech Topic

John Brodie, VA7XB

Battery Monitor Project



"The monitor was constructed around a low voltage FK915 alarm kit purchased on line "

Last spring, SARC initiated a competition to see who could construct the most suitable and innovative 12 v battery monitor for use at Field Day. Here is what I came up with.

The following design criteria were used for my version of the monitor: a) it should provide an analog reading of voltage, accurate to 0.1 volt; b) it should have an alarm that would warn of critical low voltage at an adjustable level; c) the alarm should be prominent but not disruptive to other operators; and d) it should be cheap and easy to build. Anderson power poles would be the connector of choice.

I prefer an analog display as it is easier to discern conditions at a glance without having to read a series of digits on a digital display which may be fluctuating rapidly.

The monitor was constructed around a low voltage FK915 alarm kit purchased on line for $US 5.95 from www.Qkits.com.

For the voltage indicator, I found an old analog meter in my junk box, but I needed to change it from a 1 mA full-scale ammeter to a 9-16 volts voltmeter.

I purchased locally a large red LED to substitute for the buzzer and a cast aluminum box to put it in. Anderson power poles plus mounting blocks were obtained from QuickSilver Radio Products. As will be described later, a few other small components were also required.

In order to change the 1 mA meter scale to read 9-16 volts, I calculated that a 16k resistor was needed in series with the meter (R=E/I = 16 volts/.001 amp = 16,000 ohms). The resistance of the meter itself is not significant in this case. To provide this resistance and allow calibration of the meter, a 10k ohm potentiometer was put in series with an 10k ohm fixed resistor. I also added a 9 volt Zener diode so the scale would read 9-16 volts rather than 0-16 volts.

The meter, series resistor, potentiometer and Zener diode (all in series) were connected across the input of TR5

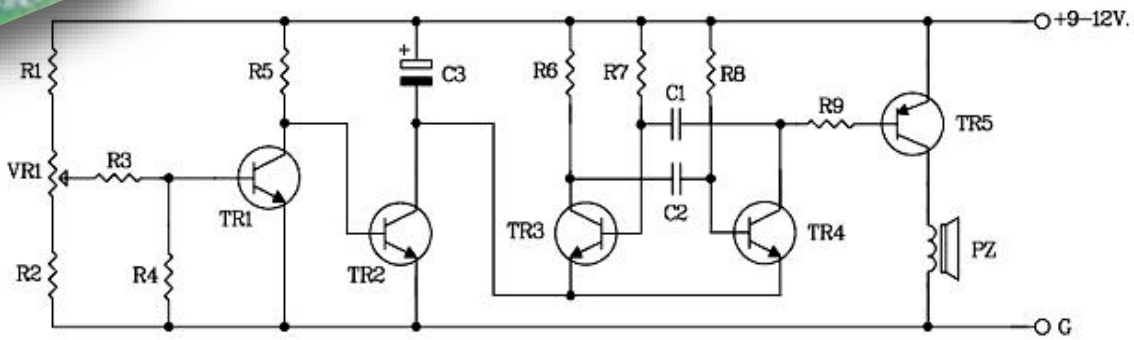


Fig. 1: The kit is complete and straightforward, and you can't beat it for US$ 5.95 With last month's charging project and next month's PowerGate you'll have a complete emergency power backup option.

transistor and PZ buzzer (or LED in my case). A potentiometer on the circuit board allows setting of the desired trigger voltage for the alarm.

A free scale drawing program called "Meter Basic" by Jim Tonne W4ENE *(figure 2—right)* is available on the Internet. A more sophisticated program simply called "Meter" is also available at a modest cost. I found the former was adequate for my needs, and allowed me to change the appearance of the meter scale as shown in the figure.

It's simple but it works.

~ John Brodie VA7XB

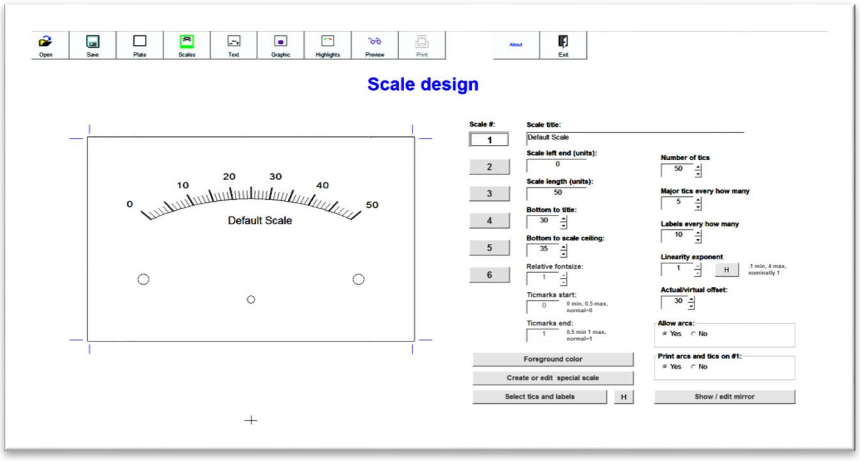


Fig. 2: Meter Basic (above) allows the appearance of the meter face to be customized.

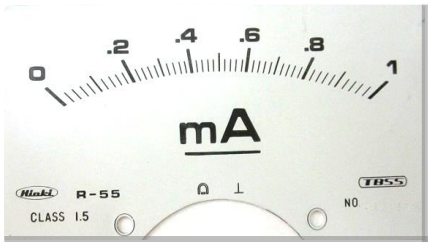


Fig. 3: Old Meter Face

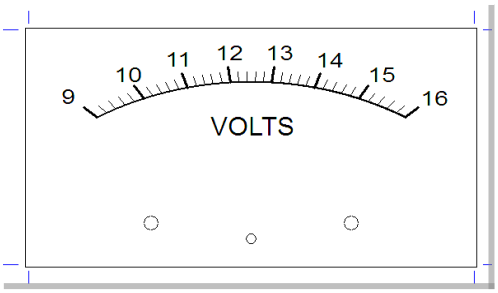


Fig. 4: New Meter Face

John demonstrated his project at the September meeting.

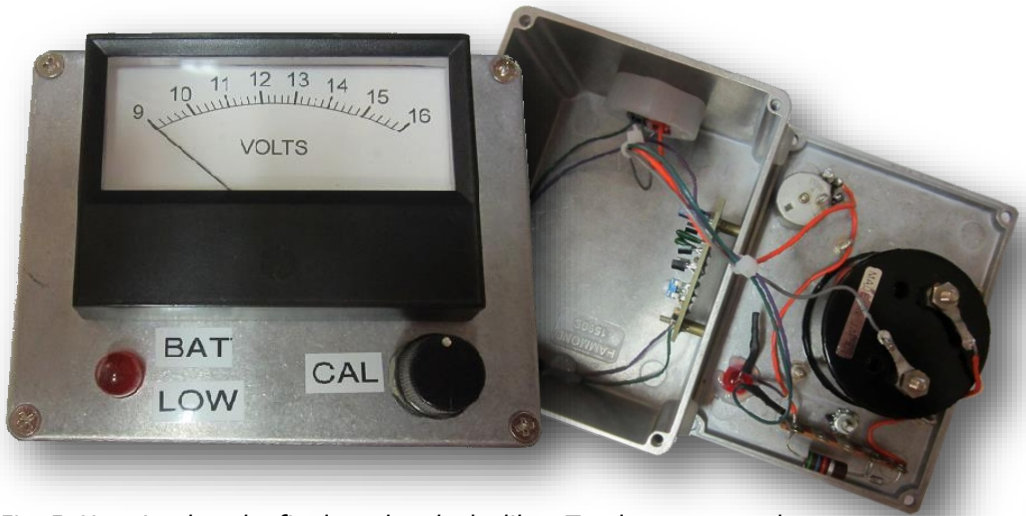
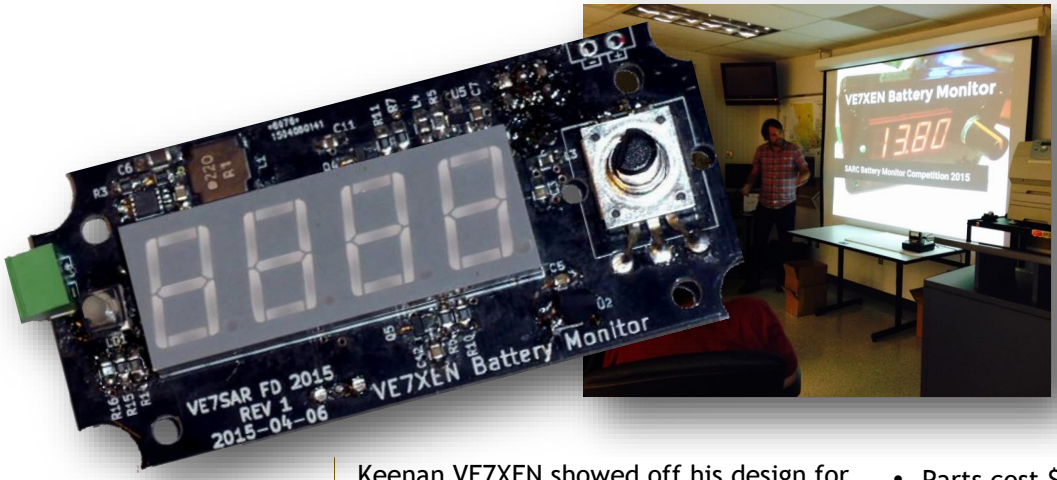


Fig. 5: Here is what the final product looks like. Total cost was under $30 but would, of course, be higher if everything was purchased new.

NOTE:
The PowerGate Relay Project, demonstrated by John VE7TI at the September meeting will be the Tech Topic in the November issue.

More Project News

Keenan VE7XEN Shows His Very Sophisticated Battery Monitor



Keenan VE7XEN showed off his design for the voltage monitor at the September meeting and promptly walked away with first prize. It was a very impressive professionally produced board with surface mount components.

It reports both under and over voltage and provides both a visual and audible alarm when voltage deviates from the set parameters. Other features:

- Multiple Alarm Methods
- Voltage to better than ±0.1V; range 5-20V
- Parts cost $30 per unit - single supplier
- Safe, “field serviceable” input connection
- Small size
- Programmable Thresholds & Alarms
- “Mute” button
- Temperature Readout

See a video demo at URL: https://youtu.be/2tfH_2MmHvI and Keenan’s slides at https://goo.gl/is40MR

Nice work Keenan!

Read the BBC story at

http://www.bbc.co.uk/news/world-europe-34184940

Chess and Morse Code

The BBC reports on a case of a chess player who allegedly used Morse code to cheat. They say Mr. Ricciardi was reportedly blinking in an unusual manner and holding his hand under his armpit. Confronted by referee Jean Coqueraut, he refused to open his shirt. Officials believe the 37-year-old was using the camera, hung around his neck, to transmit the game to someone with a chess computer program, who was feeding back moves using Morse code.

The 37-year-old player was also "batting his eyelids in the most unnatural way", Mr. Coqueraut said. "Then I understood it," he said. "He was deciphering signals in Morse code." When Mr. Ricciardi refused to open his shirt, officials asked him to pass through a metal detector which picked up a pendant hanging underneath his shirt. The pendant contained a tiny video camera connected to a small box under his armpit, officials said.

Back to Basics

John Schouten VE7TI

From The Basic Question Bank

Question B-002-01-05 (2)

What is a CTCSS (or PL) tone?

a. A tone used by repeaters to mark the end of a transmission

b. A sub-audible tone added to a carrier which may cause a receiver to accept a signal

c. A special signal used for telemetry between amateur space stations and Earth stations

d. A special signal used for telecommand control of model craft

The correct answer is b.

Why?

CTCSS stands for Continuous Tone Coded Squelch System, it is the generic abbreviation and is often used to minimize interference. For example, if two repeaters are using the same frequency between adjacent but overlapping coverage areas, by using a tone, the repeater will only activate if it 'hears' the tone as part of it's received signal. A transmitter using no tone or a different tone will not activate the repeater. Our SARC repeater uses a tone of 110.9 Hertz.

Another name for CTCSS is 'PL', the Motorola company abbreviation for "Private Line". Many repeaters require the use of a PL tone to access the repeater. The frequency that a user transmits to access a repeater is the Repeater CTCSS Encode Frequency.

Sometimes there is also a tone to activate your radio's receiver. The frequency that the repeater transmits to the user is the Repeater Decode Frequency. A radio capable of decoding PL will not hear other interference sources on the channel that would otherwise open the squelch on the user's radio.

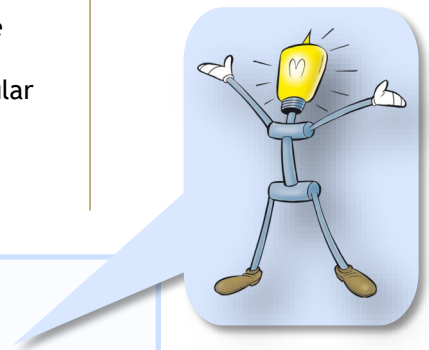
A PL is frequently used to preclude interference in high RF environments and lessen what is called kerchunking (unnecessary keying of the repeater).

Contrary to popular belief, the requirement of a PL tone to access a repeater does NOT mean it is closed.

It is up to the owner or trustee of the repeater to decide whether or not to make public the PL tone for a particular repeater.

~ John VE7TI

"...the requirement of a PL tone to access a repeater does NOT mean it is closed"



Tips...

"How do I know if my signal is getting out?"

On any mode, try calling CQ for 10 minutes, leaving plenty of breaks between short transmissions.

On CW, even if there is no response, look at the Reverse beacon network (see http://www.reversebeacon.net/) to see if they picked up your signal.

QRM

...from the Editor's shack

Do you have a photo or bit of club news to share?
An Interesting link?

Something to sell or something you are looking for?
eMail it to SARCcommunicator @ outlook.com for inclusion in this column.

Former SARC President John Brodie VA7XB is thanked by President Mike Plant VA7AT for his years of dedicated leadership

I sincerely want to thank Mike and the other members of the Executive for the thoughtful honour of the certificate and gift card. Collectively, we can be proud of the Surrey Club but it was the team that should be thanked as I saw my role as "coordinator" more than anything else.

I am confident we'll continue to prosper and grow as a club under Mike's leadership, as you already know he has lots of good ideas. I plan to continue assisting as best I can, but am glad to step back now and let others take the lead.

73 to all
John VA7XB

A Winner!

Our own 'Radio-Active' columnist Jinty Reid VA7JMR won the first prize, a new iPad, at the recent Langley Cruise-In. Well deserved too as Jinty sells lots of tickets for the draw each year. Congratulations Jinty. Now you'll be able to write your Radio-Active notes and take photos with the same device.

Another New Member

Anthony Abramski passed his basic exam with a score of 80%. He is provided with a complimentary one year SARC membership.

Welcome and congratulations.

HF Yagi For Sale

2-Element HF beam with 10, 15 and 20m, $50.
Call Fred VE7MPI (604) 543-2678

Page 13—News You Can Lose

The Lighter Side of Amateur Radio

Otto Eppers W2EA

In the early half of the 20th century ham radio was just coming into its own. During these early years there were many colorful personalities who contributed their talents and interests to the field. But one in particular is a standout and not just for his radio contributions. He bore the curious name of Otto Eppers and his work lives on today. Otto was known for his generosity, civic commitment, sense of humor and most notably his artistic ability. His QSL cards are valuable collector's items today and are treasured by many of his admirers, most are quite comical and we'll feature a few of them in future issues of the Communicator.

As a 17-year old in 1910, Otto gained some attention after diving off the Brooklyn Bridge. The headline "Youngster Eludes the Police and Plunges Into the East River, Escaping Unhurt" ran in the New York papers the next day:

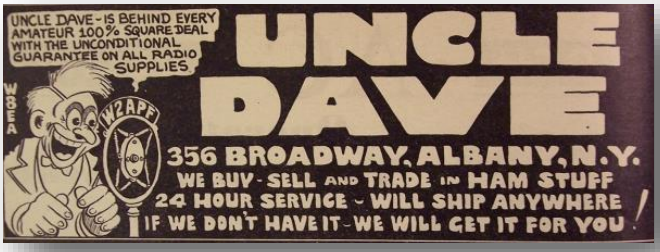
> *"The police had their hands full yesterday with bridge jumpers. One ferret-faced youth, who said he was 17 years old, did manage to elude their vigilance and plunge off the Brooklyn Bridge, but a middle-aged labourer was stopped just as he was about to climb over the parapet of the new bridge.*

Otto was later apprehended and explained that he had arranged with a tugboat owner to pick him up.

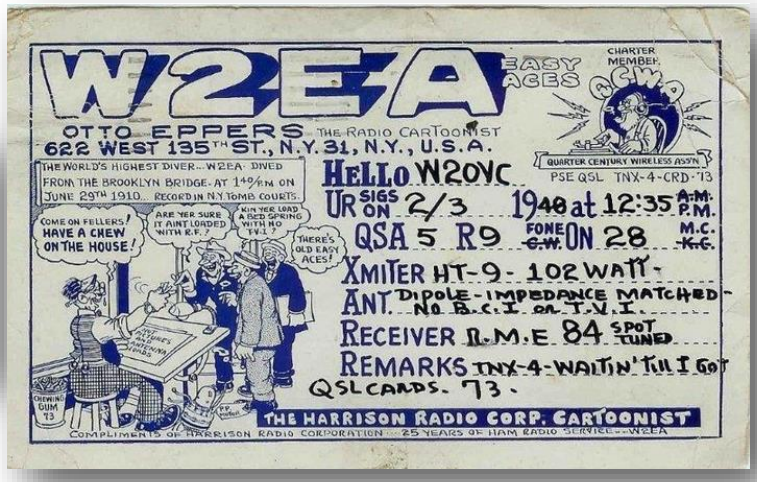
Otto enlisted in the Army and was stationed in Little Silver, New Jersey. His duties included being a motorcycle dispatch rider for the Signal Operation and Engineer's Division. It was during his enlistment that Otto cultivated a great interest in cartoon drawing. He furnished very creditable cartoons for the base's newspaper. He also became adept in early radio operation. Both of these interests would have major influences on his later life and career.

Otto gained some professional fame as a cartoonist for Marvel Comics. In his free time he worked closely with the Chair Warmers Club. This was an organization formed in 1929 to provide assistance to the hundreds of handicapped hams, many of whom were GIs. Otto contributed many cartoons to the club's newsletter. In 1947 he became one the original members of the Quarter Century Wireless Association and he designed their logo, which continues in use today. Otto suffered a stroke and became a Silent Key in the NYC Knickerbocker Hospital 22 December 1955.

If you have an Otto Eppers QSL card, you've got a valuable collector's item!



Cartoon ad drawn for a local radio supply house



SEPAR Report

Alan Saunders VA7BIT

Surrey Emergency Program Amateur Radio

Our new Weekly Net start time will be between 1900 and 1915 local

The new SEPAR executive had its first full meeting mid-September working through a long list of agenda items and beginning planning for training.

For those of you impacted by the recent power outages as a result of the latest wind storm, how many of you were prepared to be without power for several hours or in many cases several days? How many of you switched on your radio to monitor traffic?

These power outages were triggered by a few hours of high winds and caused a widespread impact in selected areas. Many people did not even know that there was a problem as their power was not impacted. One can only imagine the impact a major event would cause that involves the entire lower mainland.

As a result of this one of the first topics we will be covering will be Personal Emergency Preparedness. We will be looking beyond the basic 72hr kit preparation that the general public is presented with.

In order to allow for more time to practice using Simplex and relays of contacts while avoiding time conflicts with other club nets including SARC, a new day of the week was proposed for the SEPAR Weekly Net. The SEPAR executive agreed to first try changing the start time of the Net while keeping it on Tuesday night. As a result, our new Weekly Net start time will be between 1900 and 1915 local. Another night will be set to perform extended Simplex tests and exercises as needed.

SEPAR participation is planned for two events in October. The first is the SET (Simulated Emergency Test) currently scheduled for Saturday October 10 from 0900 to 1400 hours. Please Monitor the SEPAR Weekly Tuesday Net for information on what frequencies and bands we will be participating on as we are informed.

The second is the Great BC Shake Out Currently scheduled for Thursday October 15 starting at 1015 hours. We ask all amateurs to Monitor 146.550 Simplex and/or the SARC repeater 147.360 and please check-in to be added to the log. For more information on the annual Great BC Shake Out please go to ShakeOutBC.ca

SEPAR is looking forward to working with SARC and providing notices of upcoming events, training, and exercises.

~ Alan Saunders
SEPAR Coordinator
VA7BIT@shaw.ca

Important SEPAR Events

1. **SET** (Simulated Emergency Test) currently scheduled for Saturday, October 10 from 0900 to 1400
2. **Great BC Shake-Out** currently scheduled for Thursday, October 15 from 1000 to 1100

Emergency Comms

Marty Woll N6VI

Why Public Service-Oriented Hams Should Participate in Contests

You may have heard of the Police and Fire Games or lumberjack competitions. Most of you have seen a rodeo – at least on television - where cowboys (and cowgirls) do their thing in a stadium rather than on the range. What do all these have in common? They test skills used on the job in an enjoyable yet challenging environment.

Guess what? Amateur Radio operators compete, too, in a variety of contests held throughout the country and the world. Internationally, this is called "Radiosport". Domestically, we just call it "Contesting".

Many highly competitive Radio Amateurs consider their regular operating time to be part of their training for competitions. In a larger sense, though, radio contests are training that improves our ability to do whatever else we do in Amateur Radio more effectively.

Contesting helps prepare us for demanding communication tasks such as might be encountered during a major disaster.

Why do I call contests training events? Simply put, all the skills built through contesting experience are valuable in emergency-communications ("Emcomm") situations:

- Hearing, understanding and recording information quickly and accurately.
- Extracting information from weak signals or through interference and noise.
- Establishing and completing contacts with rapid efficiency.
- Finding work-arounds when the unexpected happens, rather than giving up.
- Knowing how to get the most out of your equipment and antennas.
- Understanding propagation and making those tough long-haul contacts.

Each contest has its own unique rules which define the challenge. There are specific starting and ending times, encompassing operating periods as short as four hours or as long as two days. Eligible stations (i.e. those with whom contacts count for contest credit) may be confined to a specific state or country or may include all hams worldwide.

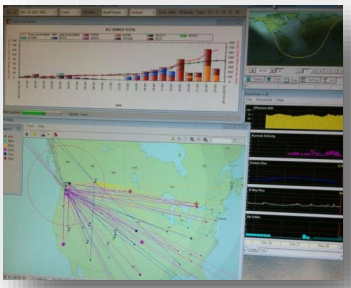
There is a defined exchange, a set of information that must be sent, received and logged accurately. Exchanges can be as simple as three or four characters to a lengthy data set that simulates the message header in a formal radiogram.

Each contact adds points, and often there is a "multiplier" for each geographic area contacted. The sum of contact points times the sum of multipliers yields the final score. Participating operators usually submit their contest logs to the sponsoring organization in electronic form, which enables rigorous cross-checking for accuracy and facilitates timely publishing of the results.

Contests are not limited to the HF bands that are primarily the domain of many General-class and higher licensees.

There are VHF, UHF and even microwave contests, all available to holders of every class of license. If you think that the two-meter or 70-centimeter band is limited to supporting nearby and repeater contacts, you're in for a surprise!

FCC Enforcement Bureau Chief Riley Hollingsworth: "Watch and learn from contesters. They're the best operators in the world"



Communication over hundreds of miles and more is possible with suitable antennas and equipment. By participating in these competitions, you will learn what works best and how your station's effectiveness can be improved.

You don't have to be in it to win it; just take part, and have fun while you're learning to enhance your and your station's performance.

When former FCC Enforcement Bureau Chief Riley Hollingsworth addressed an audience of Hams at a major radio convention a few years ago, he advised them to watch and learn from contesters. "They're the best operators in the world", he said. Having participated with many top-notch contesters myself over the last four decades, I would have to agree. If my life depended on a message getting through quickly and accurately under difficult conditions, having world-class contesters at each end of the circuit would greatly enhance the likelihood that I would survive.

Of course, most of us aren't world-class contesters. Yet we, too, can sharpen our operating skills by exercising them in organized competitions. With standardized rules and widely disseminated results, we can compare our performance with that of our peers and measure our improvement from one year to the next.

We can identify and correct weaknesses in our stations, evaluate the impact of equipment and antenna changes, and push ourselves to solve real-time communication problems as efficiently as possible.

All this builds and hones transferrable skills. It makes us better at what we do, which is getting the message through. Remember, when all else fails, Amateur Radio works, and properly trained, dedicated Hams make it happen.

~ Marty Woll N6VI
ARRL Vice Director, Southwestern Division
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Products & Gear

RepeaterBook—The World's Free Repeater Apps for Android and iPhone

In The Canadian Amateur magazine Radio Amateurs of Canada (RAC) is heavily promoting an **annual** $9.99 subscription to a smart device app to find repeaters, but there is a free app that you may wish to check out if your interest is in North American repeaters—and mostly they are. No slight intended to RAC but this app does everything I need, for free!

RepeaterBook - Easily find repeaters across North America, Canada and Mexico using your Android or Apple smart phone or tablet.

Repeater - Find repeaters across the UK, Europe, Africa, Australia, and South America.

Both include listings for all bands on which repeaters are legally used, plus EchoLink and IRLP

Powered by the popular community database of RepeaterBook.com and software of ZBM2.com, RepeaterBook for Android and iPhone, enables you to easily find repeaters across the USA and Canada, for free and without a network connection.

Database updates are frequent and you can also easily submit updates and additions from within the app.

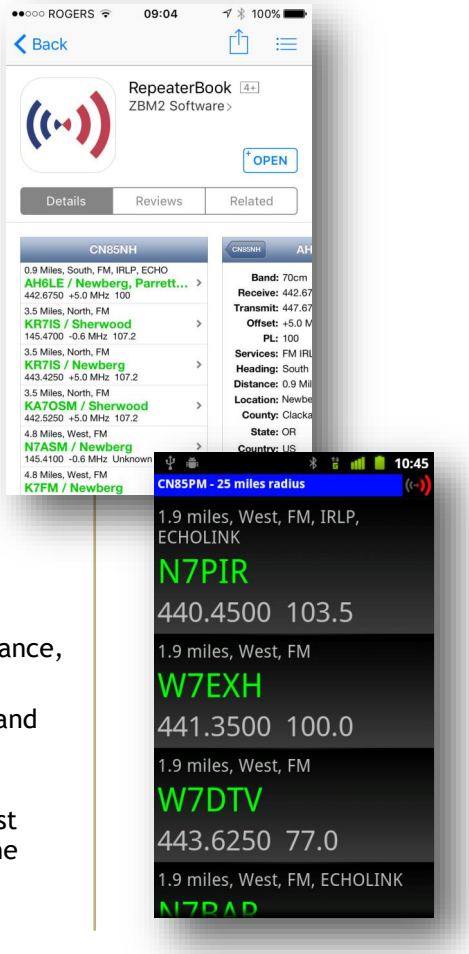
On the Android version, the app supports BlueCAT on the Yaesu (FT-817/FT-857) and iCom (7000, 7100). With a Bluetooth CAT interface you simply touch a repeater to instantly set your radio.

Search is easy. Use your device's built in GPS, a network, or just enter a Maidenhead Locator to find repeaters. No network connection required.

The app displays your locator and distance to the repeater. There are comprehensive selection, sorting and display options. The app displays distance, heading and full repeater details.

There is support for English, Spanish and French Canadian languages.

The author says Repeater and RepeaterBook will always be free! Just search for ZBM2 on Android Play or the Apple App Store.



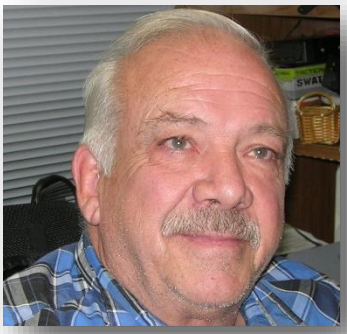
Dipole and Inverted 'V' Antenna Basics

In this video Dave Tadlock KG0ZZ explains how dipole and inverted V antennas work and how to build an hf antenna. Includes tips for construction, mounting and tuning.

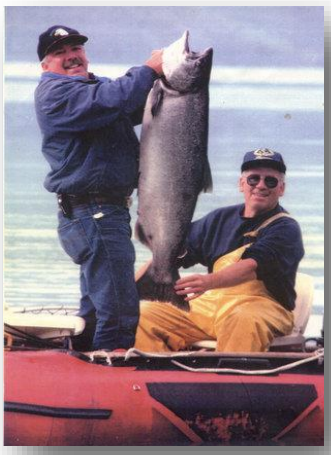
Watch Dipole and Inverted V Antenna Basics by clicking the image right or at URL: https://youtu.be/fyOWRTWdDKM

Radio-Active

Jinty Reid VA7JMR



Al Munnik
VE7RMP/VA7MP



Al likes to fish and he has the photo to prove he is a mean fisherman!

Al started life at St Mary's Hospital in New Westminster and remained in New Westminster for the first 5 or 6 years of his life until moving to South Burnaby. He comes from a mixed ethnic heritage with ancestry in Holland, Ireland, Wales and England. After graduating from high school in 1965 he went to work in his father's business, McKay Plumbing and Heating.

On the advice of his father, that Al needed to broaden his working experience, he worked for other plumbing companies in the Lower Mainland, Crow's Nest Pass, Prince George and Kamloops, eventually obtaining certification in plumbing, gas fitting and as an instrument fitter. He was employed by a company in Prince George as a draughtsman and in instrumentation. He worked for ATCO Trailers as a Field Service Representative and with this job he moved around many parts of the country working in all kinds of weather.

During the 1970's Al volunteered for PEP (Provincial Emergency Program), communicating with his CB as he travelled around with his work. However, his main focus was volunteering with their First Aid and Welfare part of their program. Al is still active in PEP, now known as EMBC.

In 1980 he returned to the Lower Mainland, where he purchased his father's plumbing business, which he still owns and works in to this day. In 1984 he married and from that marriage had a daughter Dallan, who is an R.N. at VGH. She is the apple of his eye and he is immensely proud of the fact that during her nursing courses she received honours and a 4.03 grade average. Al divorced when his daughter was quite young.

Between 1978 and 1981, while living on his 40 ft. Cruise-a-Home called. "Sun Bum," Al was involved with the Coast Guard Auxiliary. When he was living in Vernon in the 1990's Al volunteered for Search & Rescue and it was around this time that he obtained his Ham Radio license. In 2011 Al obtained his Advanced ticket with Morse Code.

Al has travelled to Mexico, Jamaica, Hawaii and the Dominican Republic where he enjoyed ATVing, Fishing, Scuba diving and Zip lining. As if he was not busy enough, Al builds hover-craft as a hobby and has a few motorized kayaks.

Being an avid Ham, Al has a radio in all his 4 vehicles. In his radio shack he has a Flex 3000 software defined radio, Kenwood TS 2000, and 5 handhelds. He has a 45 ft. antenna tower, 3 element Step-IR with a 30/40 loop, G5RV, 80 metre dipole and recently is erecting a Butternut 9 vertical.

Among his other interests are; watching the birds congregate around his birdfeeder and the rabbits and deer near his country home in Langley. He likes to hunt deer and moose, and still enjoys boating in his 23 ft. Campian Explorer called "Buccaneer". He lives with his 98 year old mother who at one time was quite well known in the political arena.

Al describes himself as having a great deal of patience, as having the ability to make something out of nothing, which may explain his nickname of "Inspector Gadget", and as someone who enjoys helping others. Al is a member of the Langley Amateur Radio Club as well as SARC. Clearly with his many talents he is a great asset to the clubs.

~ Jinty Reid VA7JMR

October Events

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29 **1900 SEPAR Net** **2000 SARC Net**	30	1	2	3 **0900 Club Breakfast:** Kalmar Family Restaurant, King George Blvd & 81st Ave
4 **DARS Com-Fest** Com-FEST Link	5	6 **1900 SEPAR Net** **2000 SARC Net**	7	8	9	10 **0900 Club Breakfast:** Kalmar Family Restaurant **Simulated Emergency Test** 0900-1400
11	12 **Thanksgiving** 	13 **1900 SEPAR Net** **2000 SARC Net**	14 **SARC General Meeting**	15 **Great BC ShakeOut** Check-In 1015 147.360(+) T=110.9	16	17 **0900 Club Breakfast:** Kalmar Family Restaurant, King George Blvd & 81st Ave
18	19	20 **1900 SEPAR Net** **2000 SARC Net**	21	22	23	24 **0900 Club Breakfast:** Kalmar Family Restaurant, King George Blvd & 81st Ave **CONTEST:** CQ WW DX (SSB)
25 **CONTEST:** CQ WW DX (SSB)	26	27 **1900 SEPAR Net** **2000 SARC Net**	28 **SARC Exec Meeting**	29	30	31 **0900 Club Breakfast:** Kalmar Family Restaurant, King George Blvd & 81st Ave

Contest Details: http://hornucopia.com/contestcal/contestcal.html

CLUB EXECUTIVE 2015-2016

PRESIDENT
Mike Plant VE7AT

VICE PRESIDENT
Brett Garrett VE7GM (Memberships)

SECRETARY
John Brodie VA7XB

TREASURER
Scott Hawrelak VE7HA

DIRECTORS
John Schouten VE7TI (Communicator Editor)

Stan Williams VA7NF (SEPAR Liaison)

Bill Gipps VE7XS

Al Peterson VA7ALZ

On the Web

ve7sar.net

Between newsletters, watch your e-mail for announcements of events, monthly meetings and training opportunities. These announcements can also be found on our web page, or via:

Twitter
@ve7sar

FaceBook
SurreyAmateurRadio

Our YouTube Channel
SurreyARC

SARC Photo Albums
Web Albums
or
tinyurl.com/SARCphoto

QRT

Mike Plant VE7AT—SARC President

Updates

220 MHz Repeater Update

The repeater and programming kit was ordered Weds September 16th, for $1,100 usd including shipping the unit will be two weeks in construction before shipping to Blaine WA. We now have an IRLP node available for the new project that was previously used by SARC, the unit has been checked over and had any adjustments needed performed by Dave Cameron VE7LTD.

We have everything we need at this point including Antenna, Coax, Cavity, repeater with built in controller, power supply, battery backup, dual fans, programming kit, plus IRLP node.

At this point I would like to say thank you to Steve VE7MAN and George VE7QH for their support and guidance in helping me get this far with the project. A special thank you to Dave Cameron VE7LTD for his prior work on our IRLP equipment and especially the repair and tune up of the present node.

Club House Update

John VA7XB and I have met with Surrey city Council Realty office, and have been given guidance in which direction and procedure is best for our situation. Shortly I will call a meeting with our clubhouse committee to work on our presentation paperwork that will be put before Surrey city council.

Stay tuned for more !!!

~ Mike VE7AT

SARC Contest Group Calendar

October 2015

California QSO Party (CW & SSB)	October 3rd
CQ Worldwide SSB DX contest (SSB)	October 24th (Hosted by VA7XB)

It's October

On Wednesday, October 14th at 1900 hrs we will meet at the EMBC PREOC. After the business portion of the meeting we will have a presentation on baluns from John White, VA7JW.

The title of the presentation will be "Why you need a Current Balun". This is more than just talking about a balun. John will talk about RF in the shack, debunk the idea of an RF ground, and answer questions like: "What is the difference between Common and Differential mode currents anyway?", "What is Skin Effect and Coax cables", "Why I never had problems with Dipoles", and more.

John has given us several excellent presentations in the past (HFTA/MicroDem Propagation Modelling and Economy Lightning Protection being the two most recent), and this one promises to be another. Come and find out how much you don't know about current baluns and their use!

Additionally, the October meeting will be the first following a new practice where the "gavel" for the meeting is rotated through the directors. For the October meeting, Brett VE7GM will be the meeting chair. Meetings for November, December, etc. will all be chaired by other directors. With eight directors, you'll want to attend all of the next seven meetings to see the entire team in action, one at a time.

SARC hosts an Amateur Radio net each Tuesday evening at 8 PM. Please tune in to the VE7RSC repeater at 147.360 MHz (+600 KHz) Tone=110.9, also accessible on IRLP node 1736 and Echolink node 496228. On UHF we operate a repeater on 443.775MHz (+5Mhz) Tone=110.9 and EchoLink Node 1736

	SEPARS Net	SARC Net
1st Tuesday	Drew VA7DRW Jay VE7KC Stdby	Drew VA7DRW Brett VE7GM Stdby
2nd Tuesday	Dixie VA7DIX Alan VA7BIT Stdby	Jinty VA7JMR
3rd Tuesday	Rob VE7CZV	Rob VE7CZV
4th Tuesday	Jinty VA7JMR Dixie VA7DIX Standby	John VA7XB
5th Tuesday	Jinty VA7JMR	Elizabeth VE7ELA
Want a turn at Net Control? Contact the SARC Net Manager VE7CZV @ separs.net		

Down The Log…

SARC Monthly Meetings

2nd Wed. (Sept-Jun)
1900 hrs at the Emergency Mgmt BC PREOC,
14275 96th Avenue,
Surrey, BC

Weekly Club Breakfast

Saturday at 0900 hrs
Kalmar Family Restaurant at
King George & 81st
Surrey

SARC Net

Tuesday at 2000 hrs local
on 147.360 MHz (+)
Tone=110.9

SEPARS Net

Tuesday at 19:00 hrs local
on 147.360 MHz (+)
Tone=110.9

We Have A SARC Patch!

These are suitable for sewing on a jacket, cap or your jammies, so you can proudly display your support for the club.

The price is $4 each or three for $10 and they can be picked up at a meeting or the weekly breakfast.

We thank our sponsors for their SARC support.

Please support them.